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PTO/SB/81 (09-03)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

**POWER OF ATTORNEY  
and  
CORRESPONDENCE ADDRESS  
INDICATION FORM**

Application Number	10/790,786
Filing Date	March 3, 2004
First Named Inventor	Jingyu Lian, et al.
Title	Method for Forming a (111) Oriented BSTO Thin Film ..
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	0928.0067C

I hereby appoint:



Practitioners associated with the Customer Number:

27896

OR



Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:



The address associated with the above-mentioned Customer Number:

OR



The address associated with Customer Number:

OR

<input type="checkbox"/>	Firm or Individual Name				
Address					
Address					
City		State	Zip		
Country					
Telephone		Fax			

I am the:



Applicant/Inventor.



Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record**

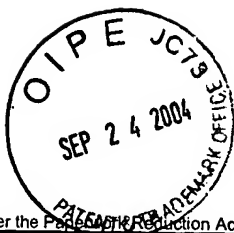
Name	Michael Kucher, for Infineon Technologies North America Corp., Its Assistant Secretary Duly Authorized		
Signature			
Date	September 16, 2004	Telephone	919-677-7101

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

<input type="checkbox"/>	*Total of _____ forms are submitted.
--------------------------	--------------------------------------

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



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OR



Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:



Applicant/Inventor.



Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record**

Name	Lynne D. Anderson, Program Manager, US Patent Office Liaison		
Signature			
Date	September 21, 2004	Telephone	(703)299-1455

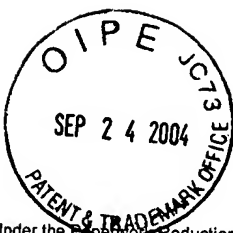
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PTO/SB/96 (08-03)  
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

### STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Jingyu Kian, et al.

Application No./Patent No.: 10/790,786 Filed/Issue Date: March 3, 2004

Entitled: Method for Forming A (111) Oriented BSTO Thin Film Layer for High Dielectric Constant Capacitors

Infineon Technologies North America Corp., a

Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or

2. ☐ an assignee of less than the entire right, title and interest.

The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee, Michael Kucher  
For Infineon Technologies North America Corp.,  
Its Assistant Secretary Duly Authorized

September 16, 2004

Date

919-677-7101

Telephone number

Typed or printed name

Signature

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## ASSIGNMENT

WHEREAS, Infineon Technologies North America Corporation, a corporation organized and existing under the state laws of Delaware, having its principal place of business at 1730 North First Street, San Jose, CA, 95112 (the "Assignor"), has acquired the entire right, title, and interest of Thomas Shaw in U.S. Patent Application No. 10/790,786 by an Assignment executed on December 10, 2003, and recorded by the U.S. Patent and Trademark Office on March 3, 2004 at Reel 015049, Frame 0406 (Patent Rights of Thomas Shaw);

WHEREAS, International Business Machines Corporation, a corporation organized and existing under the state laws of New York, having a place of business at Armonk, New York, 10504 (the "Assignee"), desires to acquire the Patent Rights of Thomas Shaw;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee all right, title and interest in such Patent Rights of Thomas Shaw, including any provisional applications, divisions, continuations, reissues, substitutions and extensions thereof, together with the right to sue and recover for past, present, and future infringement.

Assignor hereby authorizes and requests the Patent and Trademark Office officials in the United States and in any and all other countries to issue any and all Letters Patent pertaining to the Patent Rights of Thomas Shaw, to said Assignee, as the assignee of the entire interest in and to the same, for the sole use and behalf of Assignee, its successors and assigns.

FURTHER, Assignor agrees to communicate to Assignee, or its representatives, any facts known to Assignor respecting said Patent Rights of Thomas Shaw, and to testify in any legal proceedings, sign all lawful papers, execute all applications pertaining to said Patent Rights, execute all necessary assignment papers to cause any and all of said Patent Rights of Thomas Shaw to be issued to Assignee, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper protection for said Patent Rights of Thomas Shaw in the United States and in any and all other countries.

IN WITNESS WHEREOF, Infineon Technologies North America Corporation has executed this Patent Assignment.

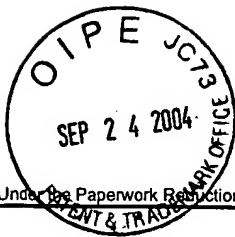
INFINEON TECHNOLOGIES NORTH AMERICA CORPORATION

By: 

Michael Kucher

Title: Its Assistant Secretary Duly Authorized

Date: 9/16/04



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PTO/SB/96 (08-03)  
Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Jingyu Kian, et al.

Application No./Patent No.: 10/790,786 Filed/Issue Date: March 3, 2004

Entitled: Method for Forming A (111) Oriented BSTO Thin Film Layer for High Dielectric Constant Capacitors

International Business Machines Corporation, a Corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 015049, Frame 0424, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.  
(NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

September 21, 2004

Date

(703) 299-1455

Telephone number

Lynne D. Anderson

Typed or printed name

Signature

Program Manager, US Patent Office

Title

Liaison

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT  
DOCKET NO. 2003P53234US  
O.C. Docket No.: INF-109

**PATENT ASSIGNMENT FORM**

For and in consideration of good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor acknowledges his/her prior and ongoing obligation to sell, assign, and transfer, and agrees to sell, assign, and transfer the entire world wide right, title and interest for the United States and all foreign countries, in and to any and all inventions and improvements conceived during and within the scope of his/her employment, and further acknowledges that he/she has sold, assigned, and transferred, and hereby sells, assigns, and transfers, unto:

**INTERNATIONAL BUSINESS MACHINES CORPORATION ("IBM"),  
Armonk, New York 10504**

a corporation of New York, and IBM desires to acquire all right, title, and interest, in and to the certain inventions (identified below), applications, and any United States and foreign patents to be obtained therefor relating to:

Title of Invention for

**METHOD FOR FORMING A (111) ORIENTED BSTO THIN FILM LAYER  
FOR HIGH DIELECTRIC CONSTANT CAPACITORS**

as set forth in United States Patent Application executed by each undersigned inventor on the date indicated by each inventor signature below, and further identified by 2003P53234US; executed concurrently herewith;

for and to said United States Patent Application including any and all divisions or continuations thereof and in and to any and all Letters Patent of the United States and foreign patents and all rights of priority to be obtained therefor which may issue on any such application or for said invention therein disclosed, including any and all reissues or extensions thereof, to be held and enjoyed by, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made;

Each undersigned inventor hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to IBM, its successors and assigns, in accordance herewith;

Each undersigned inventor warrants and covenants that he/she has the full and unencumbered right to sell and assign the interests hereby sold and assigned and that he/she has not executed and will not execute any document or instrument in conflict herewith;

Each undersigned inventor further covenants and agrees that he/she, upon the request and at the expense of the IBM, will execute and deliver any papers, make all rightful oaths, testify in any legal proceeding relating to said inventions and improvements, communicate to the IBM all facts known to the undersigned relating to such inventions and improvements and the history thereof; and perform all other lawful acts deemed necessary or desirable by IBM, and its legal representatives, to secure, maintain, and enforce patent protection for such inventions and improvements and for vesting title to such inventions and improvements in the IBM, and in particular to perfect title to said above-identified certain inventions, and applications including divisions and continuations thereof, and any and all Letters Patent which may be granted therefor or thereon, including reissues, extensions, or counterparts;

Each undersigned inventor hereby grants the IBM and the firm of the power to insert in this Assignment any further identification which may be necessary or desirable for recordation of this Assignment.

This assignment is governed by the substantive laws of the state of New York.

DEC 17 2003 19:18 FR B300-2 EQUIP RM

8458946891 TO 917037707901

P.03/07

**PATENT**  
DOCKET NO. 2003P53234US  
O.C Docket No.: INF-109

Executed by Inventor 1 of 6

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Satish ATHAVALÉ

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
David KOTECKI

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Robert LAIBOWITZ

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Katherine SAENGER

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Thomas SHAW

Signature: Yun-Yu Wang Date: 12-17-03  
Yunyu WANG

**PATENT ASSIGNMENT FORM**

For and in consideration of good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor acknowledges his/her prior and ongoing obligation to sell, assign, and transfer, and agrees to sell, assign, and transfer the entire world wide right, title and interest for the United States and all foreign countries, in and to any and all inventions and improvements conceived during and within the scope of his/her employment, and further acknowledges that he/she has sold, assigned, and transferred, and hereby sells, assigns, and transfers, unto:

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FOR HIGH DIELECTRIC CONSTANT CAPACITORS**

as set forth in United States Patent Application executed by each undersigned inventor on the date indicated by each inventor signature below, and further identified by **2003P53234US**; executed concurrently herewith;

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**PATENT**  
DOCKET NO. 2003P53234US  
O.C Docket No.: INF-109

Executed by Inventor 2 of 6

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Satish ATHAVALÉ**

Signature:  \_\_\_\_\_ Date: 12/17/03

**David KOTECKI**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Robert LAIBOWITZ**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Katherine SAENGER**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Thomas SHAW**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Yunyu WANG**

**PATENT**  
DOCKET NO. 2003P53234US  
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**PATENT**  
DOCKET NO. 2003P53234US  
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Executed by Inventor 1 of 6

Signature: *Sathavale* Date: Dec. 17, 2003  
**Satish ATHAVAL**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
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Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Robert LAIBOWITZ**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Katherine SAENGER**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Thomas SHAW**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Yunyu WANG**

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Each undersigned inventor further covenants and agrees that he/she, upon the request and at the expense of the IBM, will execute and deliver any papers, make all rightful oaths, testify in any legal proceeding relating to said inventions and improvements, communicate to the IBM all facts known to the undersigned relating to such inventions and improvements and the history thereof; and perform all other lawful acts deemed necessary or desirable by IBM, and its legal representatives, to secure, maintain, and enforce patent protection for such inventions and improvements and for vesting title to such inventions and improvements in the IBM, and in particular to perfect title to said above-identified certain inventions, and applications including divisions and continuations thereof, and any and all Letters Patent which may be granted therefor or thereon, including reissues, extensions, or counterparts;

Each undersigned inventor hereby grants the IBM and the firm of the power to insert in this Assignment any further identification which may be necessary or desirable for recordation of this Assignment.

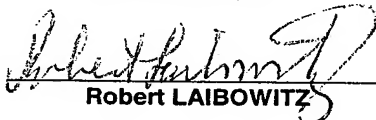
This assignment is governed by the substantive laws of the state of New York.

**PATENT**  
DOCKET NO. 2003P53234US  
O.C Docket No.: INF-109

Executed by Inventor 1 of 6

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Satish ATHAVALÉ

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
David KOTECKI

Signature:  Date: 12/18/03  
Robert LAIBOWITZ

Signature:  Date: 12/18/03  
Katherine SAENGER

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Thomas SHAW

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Yunyu WANG



## LETTER OF AUTHORITY

I, Gerald Rosenthal, Vice President, Intellectual Property and Licensing of International Business Machines Corporation (IBM), a New York corporation, do hereby delegate the authority to approve and execute documents on behalf of IBM relating to proceedings in the Patent, Trademark Registration or Copyright Offices servicing any country or region of the world, or to related appeal proceedings, including, but not limited to: petitions; powers of Attorney; authorizations; verification; nominations of representatives; declarations; documents relating to maintenance and defense of the resulting industrial property rights; assignments of rights to apply for and acquire patents and trademark registrations; and evidence of such assignments; requests for the registration of patents as available for licensing; reports of inventions and petitions for waiver of patent rights to any department or agency of the United States Government; and, assignments, licenses and other instruments confirmatory of Government rights in patents and inventions, to Lynne D. Anderson. Program Manager, Patent Office Liaison.

Date:

April 6, 2004

A handwritten signature in dark ink, appearing to read "Gerald Rosenthal", written over a horizontal line.

Gerald Rosenthal  
Vice President, Intellectual Property & Licensing  
International Business Machines Corporation